

CLAIM AMENDMENTS

1 1. (currently amended) A method for the provision of
2 telecommunications services in an environment in which there are a
3 plurality of systems working according to different standards and
4 reachable from a terminal in an integrated way, at least one of the
5 telecommunications services being provided by several systems of
6 the plurality, the method comprising, with regard to the request of
7 provision of the at least one telecommunication service, the method
8 comprising the steps of:

9 verifying the availability for the provision of the
10 requested telecommunication service of at least a first and a
11 second system of the plurality, the first telecommunication system
12 forming with respect to the second telecommunication system a
13 resource to be exploited in a preferential way, and

14 selecting, in an automatic and dynamic way, at least one
15 between the first and the second system of the plurality for the
16 provision of the requested telecommunication service by subdividing
17 the telecommunication services into

18 a first set of telecommunication services to be
19 substantially provided through the second
20 telecommunication system, and

21 a second set of telecommunication services to be
22 provided through the first telecommunication
23 system and the second telecommunication system,

24 [[b]] in case of a request for provision of a
25 telecommunication service from the first set, verifying the
26 availability of the second telecommunication system for providing
27 the telecommunication service of the first set as requested,
28 supplying and not supplying respectively the telecommunication
29 service of the first set through the second telecommunication
30 system, depending on whether or not the second telecommunication
31 system is available,

32 [[c]] in case of a request for provision of a
33 telecommunication service of the second set,

34 [[c1]] verifying the availability of the first
35 telecommunication system in order to provide
36 the telecommunication service of the second
37 set, as requested, and providing the
38 telecommunication service of the second set, as
39 requested, through the first telecommunication
40 system, if the first telecommunication system
41 is available,

42 [[c2]] if the first telecommunication system is
43 unavailable for transmission of the
44 telecommunication service of the second set as
45 requested, verifying the availability of the
46 second telecommunication system to provide the
47 telecommunication service of the second set, as
48 requested, and providing and not providing the

49 telecommunication service of the second set, as
50 requested, depending on whether or not the
51 second telecommunication system is available
52 for provision of the telecommunication service
53 of the second set, as requested.

2. (canceled)

1 3. (previously presented) The method as recited in
2 claim 1 wherein the selecting step is carried out so as to find
3 out, within the first set, a subset of telecommunication services
4 that could be provided in at least a condition of modified
5 communication resources, the presence of a provision request for a
6 telecommunication service of the subset including the step of:

7 verifying the unavailability of the second
8 telecommunication system for the provision of the telecommunication
9 service of the subset as requested and,

10 once the unavailability has been verified, re-negotiating
11 the provision request whereby the telecommunication service of the
12 subset is again requested for the provision in a condition of
13 modified communication resources.

1 4. (currently amended) The method as recited in claim 3
2 wherein the selecting step is carried out so as to lead, within the
3 second set, to a respective subset of telecommunication services

4 that are deliverable in at least one condition of modified
5 communication resources, and, when there is a provision request for
6 a telecommunication service of the respective subset, it comprises
7 the steps of:

8 verifying the unavailability of at least one between the
9 first and the second system for the provision of the
10 telecommunication service of the respective subset as requested
11 and,

12 after verifying the unavailability, re-negotiating the
13 provision request, the provision of the telecommunication service
14 of the respective subset being requested again in a condition of
15 modified communication resources.

1 5. (previously presented) The method as recited in
2 claim 4 wherein the selecting step is carried out so as to be able
3 to lead, within at least one between the set and the respective
4 subset, to telecommunication services that may be provided under a
5 plurality of conditions of modified communication resources, that
6 the method further comprising the step of

7 repeatedly re-negotiating the request for service
8 provision under subsequently modified communication resources.

1 6. (previously presented) The method as recited in
2 claim 1 wherein the selecting step comprises the step of
3 subdividing the telecommunication services into a first set

4 comprising services of conversational class and a second set
5 comprising services included in at least one class among the
6 classes of streaming services, interactive services, and background
7 services.

1 7. (currently amended) The method as recited in claim
2 [[6]] 4 wherein the second set includes streaming class services.

1 8. (previously presented) The method as recited in
2 claim 1 wherein the selecting step is carried out by selecting the
3 systems in the group formed by the mobile communication systems.

1 9. (previously presented) The method as recited in
2 claim 8 wherein the selecting step is carried out by selecting the
3 systems in the group formed by UMTS, WLAN and 802.11 systems.

1 10. (previously presented) The method as recited in
2 claim 1, further comprising the step of
3 verifying the availability of the first telecommunication
4 system on the basis of a criterion of admission control of the
5 users by detecting the performance degradation of the first
6 telecommunication system as the number of users increases.

1 11. (previously presented) The method as recited in
2 claim 10, further comprising the steps of:

3 detecting the total bit rate available to the active
4 users on the first telecommunication system, and
5 considering the first telecommunication system as
6 unavailable for a new user when the bit rate available upon the
7 possible admission of the new user reaches a threshold value.

1 12. (previously presented) The method as recited in
2 claim 1, further comprising the step of
3 detecting the availability of the second
4 telecommunication system, by defining a load parameter of the
5 second telecommunication system and by considering the second
6 telecommunication system as unavailable when the load parameter
7 reaches a threshold value.

1 13. (previously presented) The method as recited in
2 claim 12 wherein the load parameter is a parameter derived on the
3 basis of "pole capacity."

4 14. (currently amended) A system for providing
5 telecommunications services in an environment wherein a plurality
6 of telecommunications systems are provided that operate according
7 to different standards and that may be accessed from a terminal in
8 an integrated manner, at least one of the telecommunication
9 services being deliverable by more than one of the telecommuni-
10 cations systems of the plurality, the system being capable, when

there is a provision request for the at least one telecommunication service, of co-operating with the plurality of telecommunications systems and comprising:

a module [[means]] for verifying the availability for the provision of the telecommunication service requested, of at least a first and a second system of the plurality of telecommunications systems, and

a module [[means]] for selecting, in an automatic and dynamic way, between the first and the second system of the plurality for the provision of the telecommunication service requested, the first system forming with respect the second system a resource to be exploited preferentially, the selecting module [[means]] including

a) a module [[means]] for subdividing the telecommunication services into

a first set of telecommunication services to be substantially provided through the second telecommunication system, and

a second set of telecommunication services to be provided through the first telecommunication system and the second telecommunication system,

b) a module [[means]] for, in case of a request for provision of a telecommunication service from the first set, verifying the availability of

36 the second telecommunication system for
37 providing the telecommunication service of the
38 first set as requested, supplying and not
39 supplying respectively the telecommunication
40 service of the first set through the second
41 telecommunication system, depending on whether
42 or not the second telecommunication system is
43 available,

44 c) a module [[means]] for, in case of a request for
45 provision of a telecommunication service of the
46 second set,

47 c1) verifying the availability of the first
48 telecommunication system in order to
49 provide the telecommunication service of
50 the second set, as requested, and
51 providing the telecommunication service of
52 the second set, as requested, through the
53 first telecommunication system, if the
54 first telecommunication system is
55 available,

56 c2) if the first telecommunication system is
57 unavailable for transmission of the
58 telecommunication service of the second
59 set as requested, verifying the
60 availability of the second

61 telecommunication system to provide the
62 telecommunication service of the second
63 set, as requested, and providing and not
64 providing the telecommunication service of
65 the second set, as requested, depending on
66 whether or not the second
67 telecommunication system is available for
68 provision of the telecommunication service
69 of the second set, as requested.

1 15. (currently amended) The system as recited in claim
2 14 wherein the module is ~~means are~~ integrated into a controller
3 common to at least a first and a second system of the plurality.

16. (canceled)

1 17. (currently amended) The system as recited in claim
2 15 wherein the module is ~~means are~~ configured to select such that
3 the selection can lead to the presence, within the first set, of a
4 subset of telecommunication services deliverable in at least a
5 condition of reduced communication resources, and, in case of a
6 provision request of a telecommunication service of the subset, the
7 module is ~~means are~~ configured to verify the unavailability of the
8 second telecommunication system for the provision of the
9 telecommunication service of the subset as requested, and, once the

10 unavailability has been verified, to re-negotiate the provision
11 request, the telecommunication service of the subset being
12 requested again for the provision in a condition of reduced
13 communication resources.

1 18. (currently amended) The system as recited in claim
2 14, the module [[means]] being configured to select in such a way
3 that the selection can lead, within the second set, to a respective
4 subset of telecommunication services capable of being provided in
5 at least a condition of reduced communication resources, and in
6 that in case of a provision request for a telecommunication service
7 of the respective subset, the module is ~~means are~~ configured to
8 verify the unavailability of at least one between the first and
9 second system for the provision of the telecommunication service of
10 the respective subset as requested and, once the unavailability has
11 been verified, to re-negotiate the provision request such that
12 provision of the telecommunication service of the respective subset
13 is requested again in a condition of reduced communication
14 resources.

1 19. (currently amended) The system as recited in claim
2 18 wherein the module is ~~means are~~ configured to select in such a
3 way that the selection can lead, within at least one between the
4 set and the respective subset, to telecommunication services that
5 can be provided in a plurality of conditions of modified

6 communication resources, the module [[means]] being configured to
7 repeatedly re-negotiate the request for telecommunication service
8 provision under conditions of subsequently modified communication
9 resources.

1 20. (currently amended) The system as recited in claim
2 14 wherein the module is ~~means-are~~ configured to select such that
3 the first set comprises telecommunication services of
4 conversational class and the second set of telecommunication
5 services comprises telecommunication services included in at least
6 one class among the classes of the streaming services, interactive
7 services, and background services.

1 21. (previously presented) The system as recited in
2 claim 18 wherein the services of the second set are services of a
3 streaming class.

1 22. (currently amended) The system as recited in claim
2 [[21]] 14 wherein the module is ~~means-are~~ configured to co-operate
3 with mobile communication systems, including the telecommunications
4 systems of the plurality.

1 23. (currently amended) The system as recited in claim
2 [[14]] 22 wherein the module is ~~means-are~~ configured to co-operate

3 with telecommunications systems included in the group formed by
4 UMTS, WLAN and 802.11 systems.

1 24. (currently amended) The system as recited in claim
2 23 the module is ~~means are~~ integrated into a radio network type
3 controller or RNC controller.

1 25. (currently amended) The system as recited in claim
2 14 wherein the module is ~~[[means]]~~ configured to verify the
3 availability of the first telecommunication system on the basis of
4 a criterion of admission control of users thereof by detecting
5 performance degradation of the first telecommunication system as
6 the number of users increases.

1 26. (currently amended) The system as recited in claim
2 25 the module is ~~means are~~ configured to:

3 detect the total bit rate available to the users active
4 on the first telecommunication system, and

5 consider the first telecommunication system unavailable
6 for a new user when the bit rate available following the possible
7 admission of the new user reaches a threshold value.

1 27. (currently amended) The system as recited in claim
2 14 wherein the module is ~~means are~~ configured to detect the
3 availability of the second telecommunication system by defining a

4 load parameter of the second telecommunication system and by
5 considering the second telecommunication system as unavailable when
6 the load parameter reaches a threshold value.

1 28. (previously presented) The system as recited in
2 claim 27 wherein the load parameter is a parameter derived on the
3 basis of "pole capacity."

1 29. (previously presented) A computer program product
2 that may be directly loaded in the internal memory of a digital
3 computer and that comprises portions of software code to carry out
4 the method according to claim 1 when the product is run on a
5 computer.